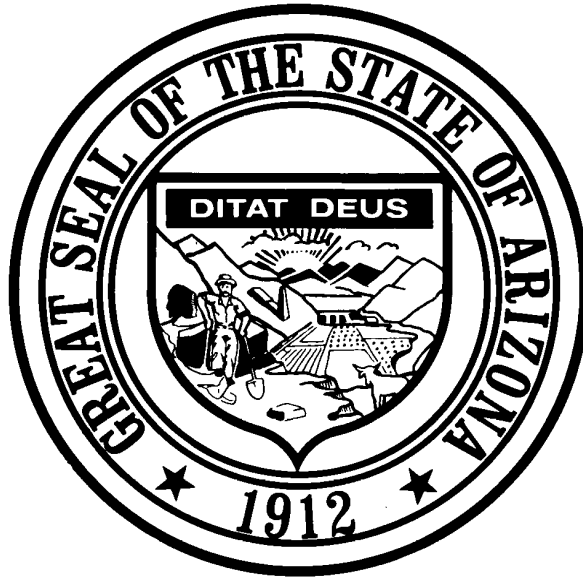




# Arizona Childhood Lead Poisoning Targeted Screening Plan 2005

**Bureau of Epidemiology and Disease Control Services  
Office of Environmental Health  
Children's Environmental Health Program**



Janet Napolitano, Governor  
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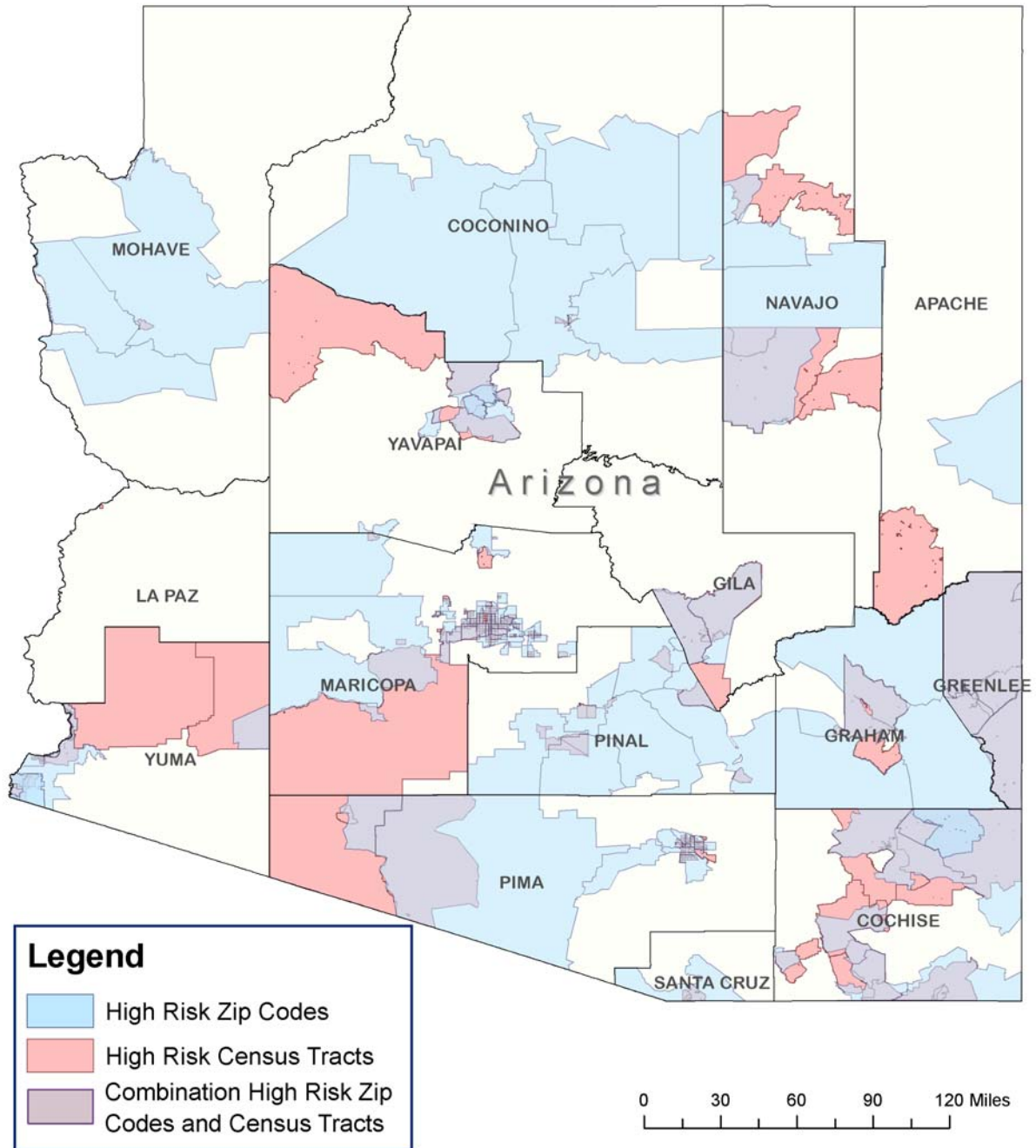
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# Lead Poisoning Risk in Arizona *2001 - 2004*



## Executive Summary

In 1991, the Centers for Disease Control and Prevention statement *Preventing Lead Poisoning in Young Children*<sup>1</sup> redefined elevated blood lead levels (EBLLs) as those  $\geq 10$   $\mu\text{g/dL}$  and recommended a new set of guidelines for the treatment of lead levels  $\geq 15$   $\mu\text{g/dL}$ . Universal screening was recommended for children 9 to 72 months of age except in communities with sufficient data to conclude that children would not be at risk of exposure. Because there were few community-based data, the 1991 CDC statement essentially called for universal screening.

Since publication of the 1991 CDC statement, epidemiological studies and lead poisoning prevention programs in many states have found that targeted (selective) screening is more appropriate than universal screening.<sup>2-7</sup> In consideration of these data; the CDC revised its guidelines in 1997.

The revised guidelines provide a basis for the Arizona Department of Health Services to decide on an appropriate screening policy using local lead poisoning data and housing data collected by the US Bureau of the Census. This strategy is intended to increase the screening and follow-up care of children who most need these services, to ensure that high-risk children are screened, to ensure that prevention approaches are appropriate to Arizona, and to reduce unnecessary testing of children unlikely to be exposed to lead.

The 1997 CDC guidelines are a response to poor screening of high-risk children and to concerns about wasting resources by universal screening in low-risk settings.<sup>8</sup> The 1997 CDC publication provides comprehensive guidance for developing a screening policy based on local blood lead and housing age data. The goal of the new CDC screening recommendations is to ensure that children at risk of exposure to lead are tested.

Lead has adverse effects on nearly all organ systems in the body. It is especially harmful to the developing brains and nervous systems of children under the age of 6 years. At very high blood lead levels, children can have severe brain damage or even die. At blood lead levels as low as 10 micrograms per deciliter ( $\mu\text{g/dL}$ ), children's intelligence, hearing, and growth are affected. This damage can be stopped if a child's lead exposure is reduced. Studies are being done to determine if the damage can be reversed.

The Arizona Department of Health Services maintains the lead exposure registry for Arizona. The program develops lead poisoning prevention strategies, investigates cases with elevated blood lead levels, provides lead poisoning case follow-up and conducts educational outreach activities.

Laboratories and health care providers reported **239** children with lead poisoning ( $\geq 10$   $\mu\text{g/dL}$ ) in **2004**. Lead-based paint in older homes continues to be a remaining source of lead poisoning for children in Arizona. Homes built before 1978 are more likely to contain lead based paint that can be a source of lead poisoning. Older homes built before 1960 are the most likely to be a potential source for lead poisoning. Lead containing folk remedies and lead containing pottery are significant sources of lead exposure in Arizona. Hispanic children are more likely to suffer lead poisoning due to these sources. Other lead sources identified during environmental investigations were lead containing toys, mini-blinds and take home exposure.

The CDC publication, *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials*, lists steps that state public health agencies should follow in the policy development activity of developing and implementing a statewide targeted blood lead testing plan. The Lead Poisoning Screening Coalition was also organized using this CDC publication. The coalition was directed to examine prevalence and the risk factors for lead poisoning in Arizona.

The 1997 CDC guidance recommends that blood lead data, housing data, demographic data on children, and data on the presence of other sources of lead be used to assess lead exposure in the state in order to determine whether targeted screening is appropriate.

The Arizona Department of Health Services and the Coalition used available lead poisoning prevalence rates and pre-1960 housing data for each ZIP code to develop a Lead Poisoning Risk Index for each ZIP code in Arizona for the 2003 targeted screening plan.

The 2005 plan further identifies at the census tract level areas considered to be high risk for lead poisoning. This document updates the 2003 targeted screening plan with the high-risk census tracts for each county in Arizona.

## Introduction

The principal federal recommendations on screening young children for lead poisoning are issued by the Centers for Disease Control and Prevention (CDC); the current guidance was published in November 1997 in a document called *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials*. State health departments and their partners are encouraged to develop formal childhood lead poisoning screening plans that reflect local conditions.

The CDC guidance recommends targeted screening in communities or states where less than 12% of children have lead poisoning and where 27% or fewer of houses were built before 1950. This recommendation is based partially on an analysis suggesting that the benefits of universal screening outweigh the costs only when the prevalence of lead poisoning is in the range of 11% to 14% or higher.<sup>8</sup> Lead poisoning rates in Arizona meet these criteria for development of a targeted screening plan.

The Arizona Department of Health Services and the Childhood Lead Poisoning Screening Coalition selected a policy that recommends a geographic targeted lead screening approach that focuses blood lead testing resources on Arizona children who are at higher risk for lead poisoning. This plan also supports the Arizona Health Care Cost Containment System (AHCCCS) requirement of testing all enrolled children. Federal law specifically requires lead screening “as appropriate for age and risk factors” for all children enrolled in Medicaid. The screening provision is part of the mandatory package Screening, Diagnostic and Treatment Services” (or EPSDT).

## The Arizona Plan

- **All children living in targeted ZIP codes or census tracts should have a blood lead test at 12 and 24 months of age. Children aged 36 to 72 months should be tested if they have not been previously tested.**

- All children covered by the Arizona Health Care Cost Containment System (AHCCCS) should be tested according to the Centers for Medicare and Medicaid Services (CMS) requirements, as follows: test all children at 12 and 24 months of age; test children at 36 to 72 months of age if they have not been previously tested.
- For children not living in a targeted ZIP code or census tract area, health care providers should conduct an individual risk evaluation in order to determine whether those children are at increased risk of having an elevated blood lead level (BLL).

## Effects from Lead Poisoning

Lead has adverse effects on nearly all organ systems in the body. It is especially harmful to the developing brains and nervous systems of children under the age of 6 years. At very high blood lead levels, children can suffer severe brain damage or die. At blood lead levels as low as 10 micrograms per deciliter ( $\mu\text{g/dL}$ ), children's intelligence, hearing, and growth are affected. This damage can be stopped if a child's lead exposure is reduced. Studies are being conducted to determine if this damage can be reversed.

A child is considered to be physiologically lead-poisoned at a blood lead level equal to 10  $\mu\text{g/dL}$  or greater. The Centers for Disease Control and Prevention chose this level because it is the level at which health effects become significant. In addition, at this level, CDC recommends that action be taken to keep the blood lead level from increasing. In 1991, the CDC estimated that the average benefit of preventing a child's blood lead level from rising above 24  $\mu\text{g/dL}$  was \$1,300 in medical and public health case management costs, and \$3,331 in special education costs. A Health and Human Services advisory group and the National Academy of Sciences are examining research concluding that even tiny amounts of lead hinder children's intelligence.

A number of studies have estimated that a child's IQ will drop by one to three points for every increase of 10  $\mu\text{g/dL}$  in the child's blood lead level. In a community, the presence of lead-poisoned children can be associated with an increase in the number of children with developmental deficits and learning disorders. As a result, this places an unnecessary and expensive burden on the educational system. According to the CDC publication, *Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention, March 2002*, the presence of lead-poisoned children also requires substantial community public health resources for medical and environmental case management services.<sup>9</sup>

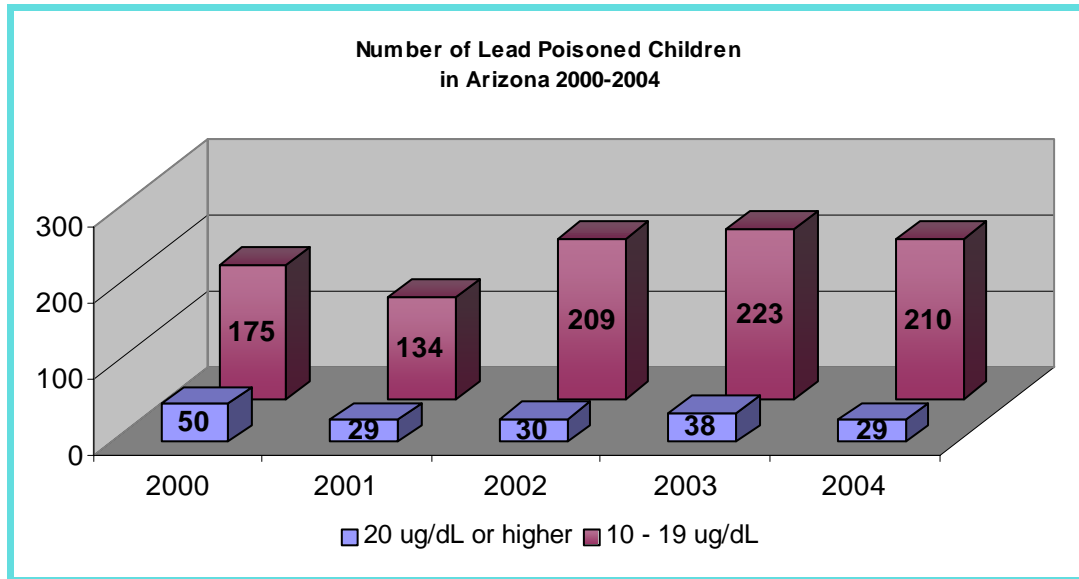
## Lead Poisoning Cases in Arizona

The Arizona Department of Health Services (ADHS) Lead Poisoning Prevention Program maintains the lead exposure registry for Arizona. In addition, the program develops lead poisoning prevention approaches, investigates cases with elevated blood lead levels, and conducts educational outreach activities.

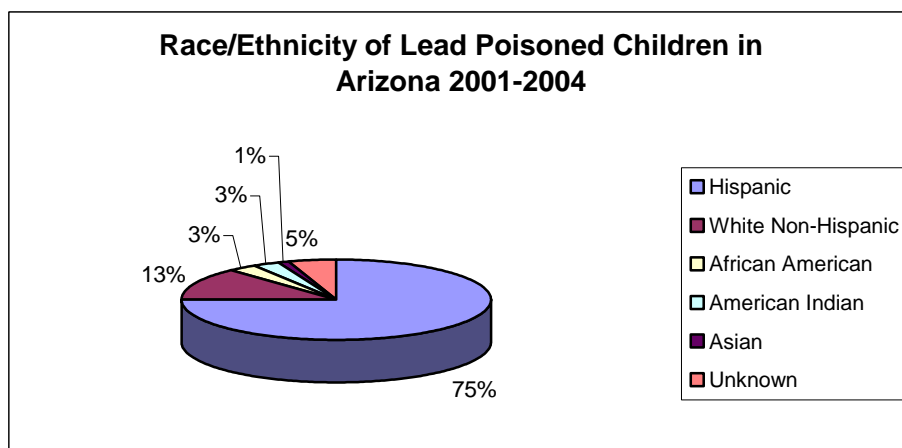
Laboratories and health care providers reported 239 children with lead poisoning ( $\geq 10$   $\mu\text{g/dL}$ ) in 2004. Figure 1 displays the number of childhood lead poisoning cases for 2000 to 2004. Eighty-eight percent (88%) of the childhood cases (210 cases) were in the lower

ranges of lead poisoning (10 to < 20 ug/dL). The remaining twelve percent (12%) of the childhood cases (29 cases) were in the moderate to severe range of lead poisoning ( $\geq 20$  ug/dL).

Figure 1



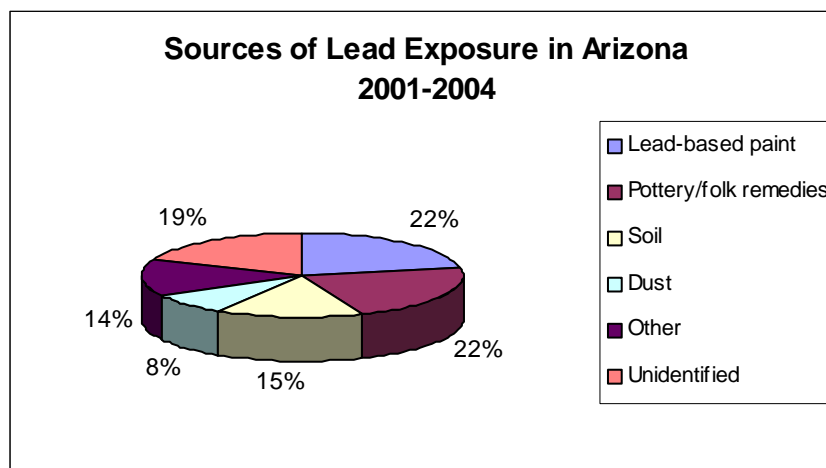
Approximately 75% of lead poisoning cases were Hispanic from 2001 through 2004. It is not known whether the disproportionate number of Hispanic cases was the result of socioeconomic factors, sampling bias, a random effect, or an unidentified risk factor. The over-representation of Hispanic children persisted in the group of children reported to have blood levels of  $\geq 20$  ug/dL.



## Lead Poisoning Exposure

Lead-based paint in older homes continues to be a remaining source of lead poisoning for children in Arizona. Homes built before 1978 are more likely to contain lead based paint that can be a source of lead poisoning. Older homes built before 1960 are the most likely to be a potential source for lead poisoning. Lead containing folk remedies and lead containing pottery are significant sources of lead exposure in Arizona. Hispanic children are more likely to suffer lead poisoning due to these sources. Other lead sources identified during environmental investigations were lead containing toys, mini-blinds and take home exposure.

The following chart displays the sources of lead exposures found in environmental investigations conducted for 2001-2004.



## Screening Plan Development Method

The 1997 CDC guidance recommends that blood lead data, housing data, demographic data on children, and data on the presence of other sources of lead be used to assess lead exposure in the state in order to determine whether targeted screening is appropriate.

The following CDC evaluation criteria were analyzed to evaluate Arizona's blood lead data, of which, Arizona meets all criterion:

- Laboratory data are available for children who have been tested.
- Laboratory data are of good quality.
- Demographic, socioeconomic, and geographic data are available for individual children.
- Testing data are representative of the pediatric population in Arizona. Based on address and AHCCCS status, it appears that both very high risk and very low risk children are being tested across the state of Arizona. In

ZIP Codes where testing numbers are low, the risk of lead exposure can be estimated by reviewing pre-1960 housing.

- Testing data are available for a sample that is large enough to allow for a valid estimate of prevalence to be made. In ZIP Codes where testing numbers are low, the risk of lead exposure can be estimated by reviewing pre-1960 housing.
- Labs reporting data should be successful participants in an approved proficiency testing program.
- Blood lead level tests should be maintained in a way that allows identification of duplicate and sequential tests on a single child. It must be possible to distinguish between the number of children tested and the number of tests performed.
- The results of all tests, regardless of blood lead levels, should be available, so that calculation of rates of elevated blood lead levels among tested children can take place.
- The data should be representative, i.e., the demographic, socioeconomic, and geographic distribution of children screened should be similar to that of all children in the jurisdiction.

### Determining the Targeted Screening Boundaries Using Census Tracts

The Arizona Department of Health Services and the Coalition determined that Arizona's blood lead data meets the criteria to be useful in assessing the lead exposure of Arizona children and the boundaries of the recommendation area should be set. The 2005 Targeted Screening Plan updates the 2003 Targeted Screening Plan by further defining the boundaries of children at risk of lead poisoning by identifying areas by census tract for each county in Arizona.

### Targeted Screening Thresholds

The Arizona Department of Health Services and the Coalition uses available 2000 Census data, lead poisoning prevalence rates and pre-1960 housing data for each of the census tracts in Arizona. The 2005 Arizona Lead Poisoning Risk Index (LPRI) formula for census tracts is:

$$\text{LPRI} = [A + B + C + D + \{E/(F \times G)\}]$$

where:

A = % of total population being children age 0-5 years old

*Source: Percentage of population age 0-5 years old, Census 2000 SF 1, PCT12 Sex by Age (209), 100 percent data – Universe: Total population.*

B = % of total housing stock built prior to 1960

*Source: Percentage of housing built prior to 1960, Census 2000 SF 3, H34 Year Structure Built (10), sample data – Universe: Housing units.*

C = % of total households being exclusively Spanish speaking

*Source: Percentage of households exclusively Spanish speaking, Census 2000 SF 3, P20 Household Language (14), sample data – Universe: Households.*

D = % of families with children age 0-4 whose 1999 income was below poverty level

*Source: Percentage of families with children age 0-4 years whose income in 1999 below poverty level, Census 2000 SF3, P90 Poverty Status in 1999 of Families by Family Type by Presence of Related Children Under 18 Years by Age of Related Children (41), sample data – Universe: Families.*

E = Number of children age 0-5 years with a blood lead level of 10 µg/dL or higher between 2001-2004.

*Source: AZ CLPPP registry of lead poisoned children.*

F = Number of children age 0-5

*Source: Total number of children age 0-5, Census 2000 SF 1, PCT12 Sex by Age (209), 100 percent data – Universe: Total population.*

G = Average AHCCCS screening percentage = 0.117

*Source: Arizona Health Care Cost Containment System Blood Lead Draw Data 2002-2003.*

The LPRI equation was applied to every census tract in Arizona (1,059 total). The Statewide average risk index is 0.299. The high-risk tracts are defined as census tracts with a LPRI  $\geq$  0.359. This results in 322 census tracts identified as high risk in all 15 of Arizona's counties.

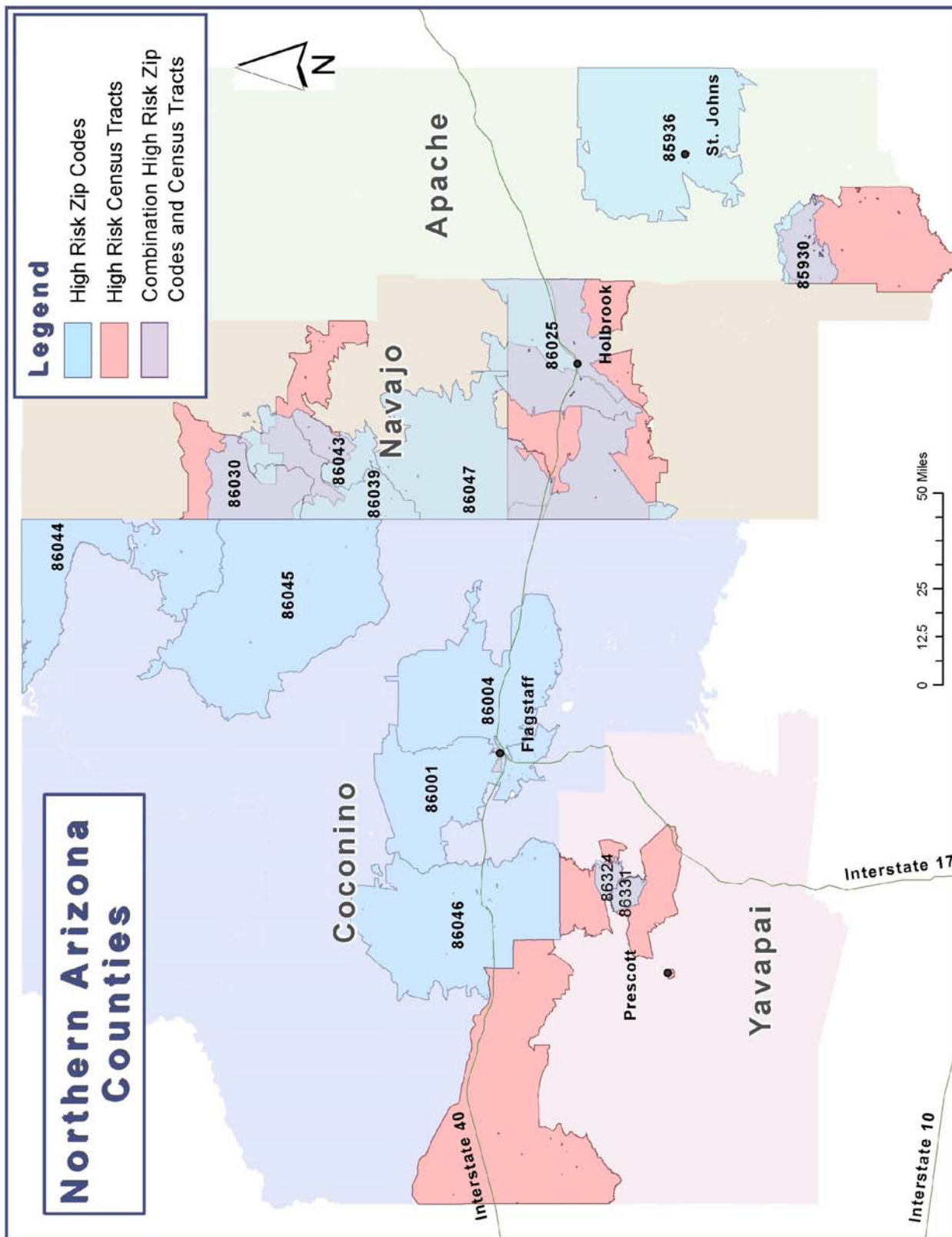
The following tables display the results of the lead poisoning risk index calculations for the high-risk census tracts by county. The zip code and city have been added to allow a general idea where the tract is located within the county.

Apache

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Apache CT 9401	0.660	McNary	85930
Apache CT 9703	0.370	St. Johns	85936

Navajo

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Navajo CT 9410	0.424	SE County	86039, 86043
Navajo CT 9602	0.466	Holbrook	86025
Navajo CT 9604	0.732	Winslow	86047
Navajo CT 9605	0.455	NW County	86030, 86503
Navajo CT 9606	0.506	Winslow	86047



Coconino

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Coconino CT 3	0.476	Flagstaff	86004
Coconino CT 8	0.531	Flagstaff	86001
Coconino CT 12	0.542	Flagstaff	86001
Coconino CT 17	0.573	Williams	86046
Coconino CT 9411	0.390	Tonalea	86044
Coconino CT 9412	0.513	Tuba City	86045

Yavapai

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Yavapai CT 1	0.411	NW County	86326
Yavapai CT 9	0.572	Prescott	86301
Yavapai CT 19	0.367	Central County	86324, 6331

Gila

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Gila CT 8	0.461	Miami	85539
Gila CT 9	0.750	Claypool-Globe	85539
Gila CT 10	0.376	North of Globe	85501
Gila CT 11	0.799	Globe	85501
Gila CT 13	0.750	Hayden	85235

Graham

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Graham CT 9911	0.417	Pima - Safford	85543
Graham CT 9913	0.680	Safford	85546

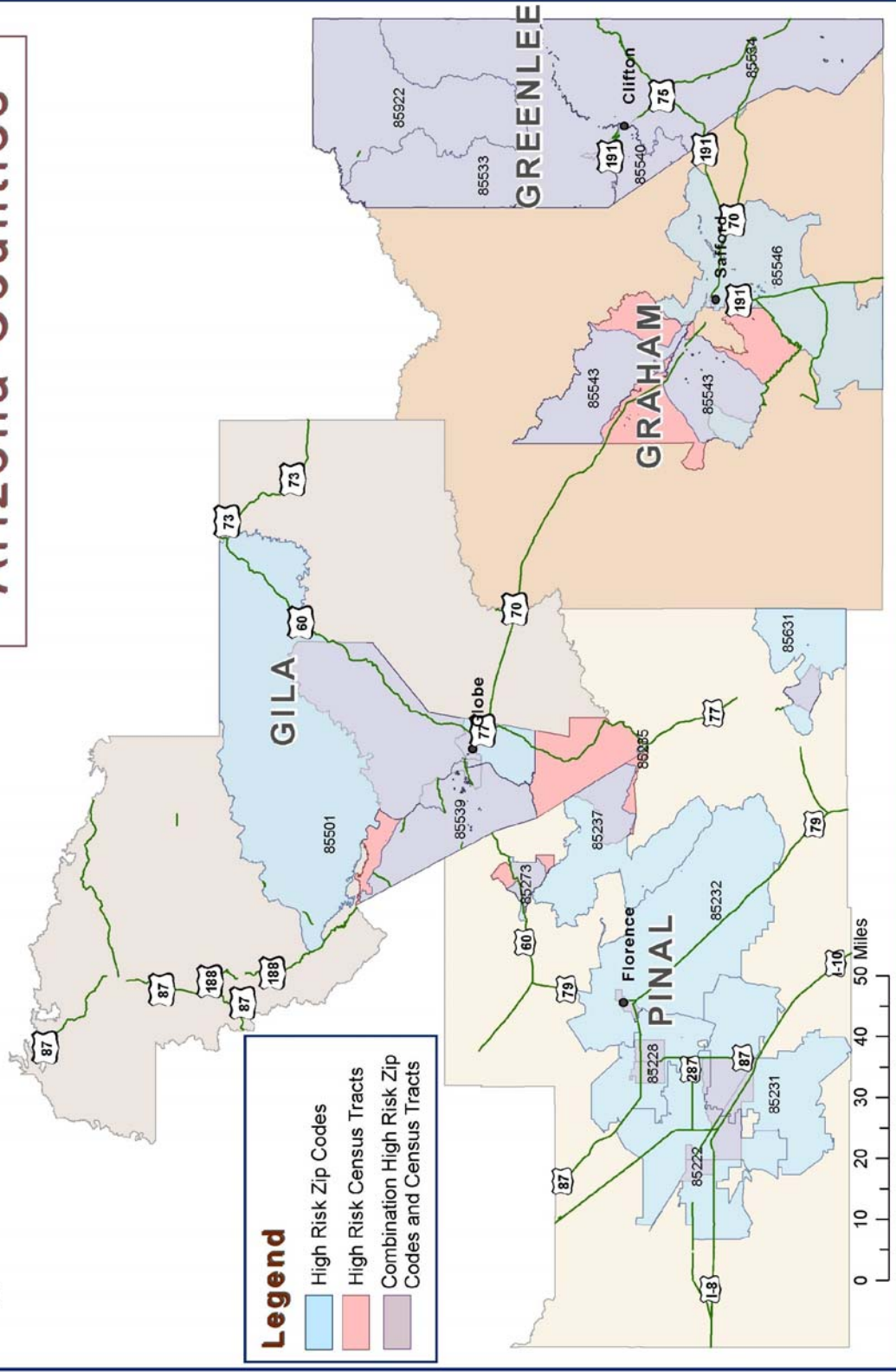
Greenlee

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Greenlee CT 9901	0.558	N County	85922
Greenlee CT 9902	0.407	Clifton - Morenci	85533, 85540
Greenlee CT 9903	0.420	E County	85534

Pinal

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Pinal CT 4	0.754	NE County	85273
Pinal CT 5	0.389	Kearny	85237
Pinal CT 7	0.651	San Manuel	85631
Pinal CT 9	0.373	Florence	85232

# Central and Eastern Arizona Counties

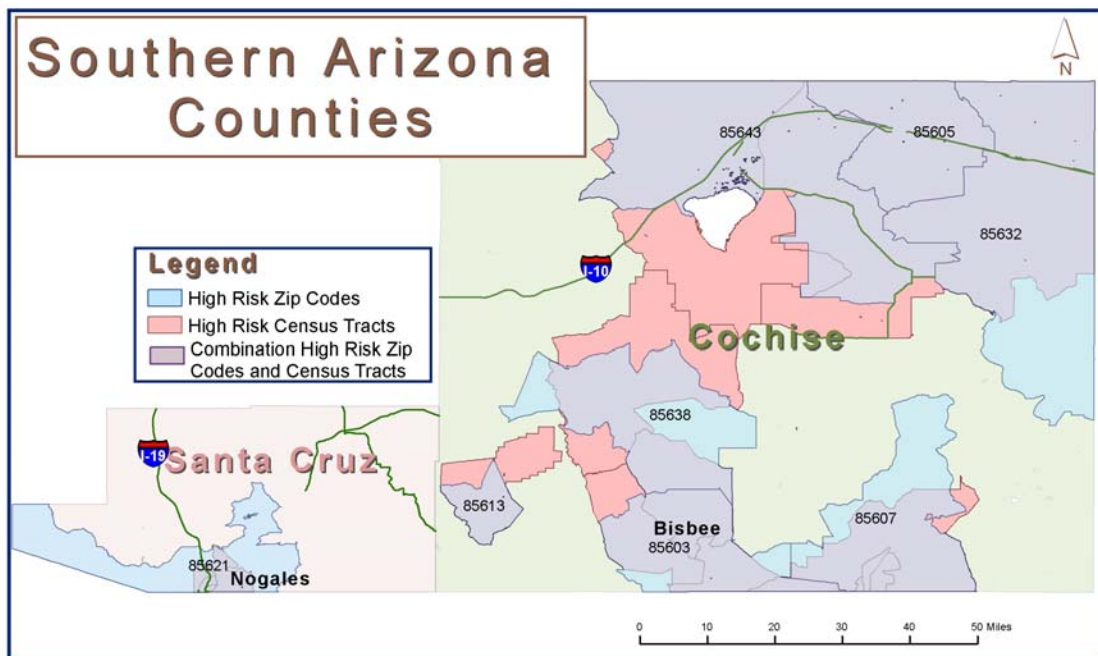


### Cochise

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Cochise CT 1	0.360	NE County	85605, 85632
Cochise CT 2	0.374	Willcox	85643
Cochise CT 4	0.409	Tombstone	85638
Cochise CT 6	0.623	Pirtleville - Douglas	85607
Cochise CT 7	0.439	Douglas	85607
Cochise CT 8	0.841	Douglas	85607
Cochise CT 9	1.157	Douglas	85607
Cochise CT 10	1.101	Bisbee	85603
Cochise CT 11	1.072	Naco	85603
Cochise CT 12	0.589	E of Sierra Vista	85603
Cochise CT 14	0.560	Sierra Vista	85613

### Santa Cruz

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Santa Cruz CT 9962	0.535	Nogales	85621
Santa Cruz CT 9963	0.678	Nogales	85621
Santa Cruz CT 9964.01	0.644	Nogales	85621
Santa Cruz CT 9964.02	1.006	Nogales	85621



### Maricopa

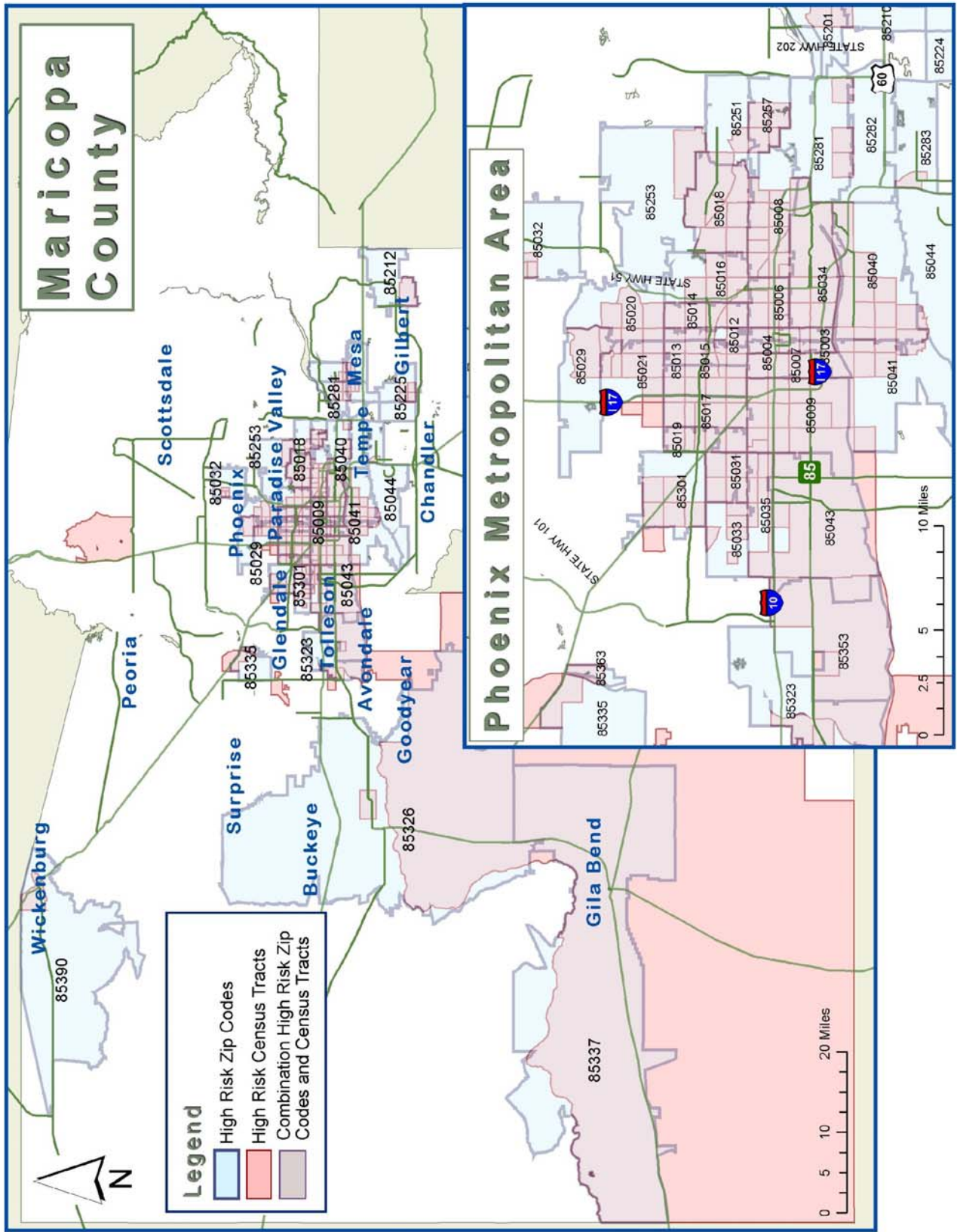
High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Maricopa CT 405.02	0.378	Wickenburg	85390
Maricopa CT 507	0.567	Buckeye	85326
Maricopa CT 608	0.448	El Mirage	85335
Maricopa CT 609	0.422	El Mirage	85335
Maricopa CT 611	0.448	Glendale	85307, 85309
Maricopa CT 612	0.420	Avondale	85323
Maricopa CT 613	0.747	Avondale	85323
Maricopa CT 614	0.605	Avondale	85323
Maricopa CT 716	0.514	Youngtown	85363
Maricopa CT 821	0.557	Tolleson	85353
Maricopa CT 822.01	0.401	Avondale	85323
Maricopa CT 822.02	0.636	Avondale	85323
Maricopa CT 925	0.619	Glendale	85301
Maricopa CT 926	0.672	Glendale	85301
Maricopa CT 927.05	0.459	Glendale	85301
Maricopa CT 928	0.690	Glendale	85301
Maricopa CT 929	0.707	Glendale	85301
Maricopa CT 931.02	0.532	Glendale	85301
Maricopa CT 1033.04	0.444	Phoenix	85032
Maricopa CT 1033.05	0.370	Phoenix	85032
Maricopa CT 1033.06	0.372	Phoenix	85032
Maricopa CT 1036.15	0.559	Phoenix	85029
Maricopa CT 1045.01	0.688	Phoenix	85021
Maricopa CT 1045.02	0.887	Phoenix	85021
Maricopa CT 1046	0.574	Phoenix	85020
Maricopa CT 1047	0.433	Phoenix	85020
Maricopa CT 1050.02	0.396	Paradise Valley	85253
Maricopa CT 1052	0.452	Phoenix	85020
Maricopa CT 1053	0.609	Phoenix	85020
Maricopa CT 1054	0.405	Phoenix	85021
Maricopa CT 1056.01	1.004	Phoenix	85051
Maricopa CT 1059	0.385	Phoenix	85051
Maricopa CT 1060	0.545	Phoenix	85051
Maricopa CT 1061	0.459	Phoenix	85021
Maricopa CT 1062	0.546	Phoenix	85021
Maricopa CT 1063	0.401	Phoenix	85020
Maricopa CT 1065	0.509	Phoenix	85014
Maricopa CT 1066	0.676	Phoenix	85014
Maricopa CT 1067	0.401	Phoenix	85013, 85012
Maricopa CT 1068	0.475	Phoenix	85017
Maricopa CT 1069	0.628	Phoenix	85051

Maricopa CT 1070	0.561	Phoenix	85017
Maricopa CT 1071.01	0.579	Phoenix	85019
Maricopa CT 1071.02	0.394	Phoenix	85019
Maricopa CT 1072.01	0.642	Phoenix	85017
Maricopa CT 1072.02	0.917	Phoenix	85017
Maricopa CT 1073	0.799	Phoenix	85017
Maricopa CT 1074	0.597	Phoenix	85013
Maricopa CT 1075	0.641	Phoenix	85013
Maricopa CT 1076	0.505	Phoenix	85014
Maricopa CT 1077	0.511	Phoenix	85016
Maricopa CT 1079	0.365	Phoenix	85018
Maricopa CT 1080	0.655	Phoenix	85018
Maricopa CT 1081	0.454	Phoenix	85018
Maricopa CT 1082	0.674	Phoenix	85018
Maricopa CT 1083	0.549	Phoenix	85018
Maricopa CT 1084	0.611	Phoenix	85016
Maricopa CT 1085	0.404	Phoenix	85016
Maricopa CT 1086.01	0.758	Phoenix	85014
Maricopa CT 1086.02	0.618	Phoenix	85014
Maricopa CT 1088.01	0.625	Phoenix	85013
Maricopa CT 1088.02	0.710	Phoenix	85013
Maricopa CT 1089.01	0.980	Phoenix	85013
Maricopa CT 1089.02	0.599	Phoenix	85013
Maricopa CT 1090	0.596	Phoenix	85015
Maricopa CT 1091	0.910	Phoenix	85017
Maricopa CT 1092	0.702	Phoenix	85019
Maricopa CT 1093	1.008	Phoenix	85031
Maricopa CT 1094	0.530	Phoenix	85031
Maricopa CT 1096.04	0.452	Phoenix	85033
Maricopa CT 1097.01	0.429	Phoenix	85033
Maricopa CT 1097.04	0.436	Phoenix	85033
Maricopa CT 1098.01	0.432	Phoenix	85033
Maricopa CT 1098.02	0.483	Phoenix	85033
Maricopa CT 1099	0.644	Phoenix	85031
Maricopa CT 1100.01	0.951	Phoenix	85031
Maricopa CT 1100.02	0.936	Phoenix	85031
Maricopa CT 1101	0.822	Phoenix	85019
Maricopa CT 1102	0.781	Phoenix	85017
Maricopa CT 1103	0.796	Phoenix	85015
Maricopa CT 1104	0.916	Phoenix	85015
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Maricopa CT 1106	0.733	Phoenix	85014
Maricopa CT 1107.01	0.626	Phoenix	85016
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Maricopa CT 1111	0.732	Phoenix	85018
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Maricopa CT 1143.02	1.267	Phoenix	85007
Maricopa CT 1144.01	1.115	Phoenix	85009
Maricopa CT 1144.02	1.218	Phoenix	85009
Maricopa CT 1145	1.067	Phoenix	85009
Maricopa CT 1146	0.901	Phoenix	85009
Maricopa CT 1147.01	0.865	Phoenix	85009
Maricopa CT 1147.02	1.175	Phoenix	85009
Maricopa CT 1147.03	0.765	Phoenix	85009
Maricopa CT 1148	0.978	Phoenix	85007
Maricopa CT 1149	0.995	Phoenix	85004
Maricopa CT 1150	1.105	Phoenix	85034
Maricopa CT 1151	1.507	Phoenix	85009
Maricopa CT 1152	0.468	Phoenix	85040
Maricopa CT 1153	0.890	Phoenix	85040
Maricopa CT 1154	1.010	Phoenix	85040
Maricopa CT 1155	0.483	Phoenix	85041
Maricopa CT 1157	0.814	Phoenix	85041
Maricopa CT 1158.01	0.719	Phoenix	85040
Maricopa CT 1158.02	0.820	Phoenix	85041
Maricopa CT 1159	0.762	Phoenix	85040
Maricopa CT 1160	0.527	Phoenix	85040
Maricopa CT 1161	0.995	Phoenix	85040
Maricopa CT 1163	0.449	Phoenix	85040
Maricopa CT 1164	0.631	Phoenix	85042
Maricopa CT 1165	0.801	Phoenix	85041
Maricopa CT 1166.02	0.465	Phoenix	85041
Maricopa CT 1167.02	0.522	Phoenix	85042
Maricopa CT 1167.03	0.401	Phoenix	85044
Maricopa CT 2175	0.432	Scottsdale	85251
Maricopa CT 2179	0.367	Scottsdale	85251, 85257
Maricopa CT 2180	0.518	Scottsdale	85251, 85257
Maricopa CT 2181	0.567	Scottsdale	85257
Maricopa CT 2182	0.364	Scottsdale	85257
Maricopa CT 3189	0.438	Tempe	85281, 85282
Maricopa CT 3190	0.680	Tempe	85281, 85282
Maricopa CT 3192	0.379	Tempe	85281
Maricopa CT 3200.02	0.698	Tempe	85283
Maricopa CT 4209.02	0.396	Mesa	85203
Maricopa CT 4210	0.382	Mesa	85201
Maricopa CT 4211.02	0.448	Mesa	85201
Maricopa CT 4213.02	0.627	Mesa	85201

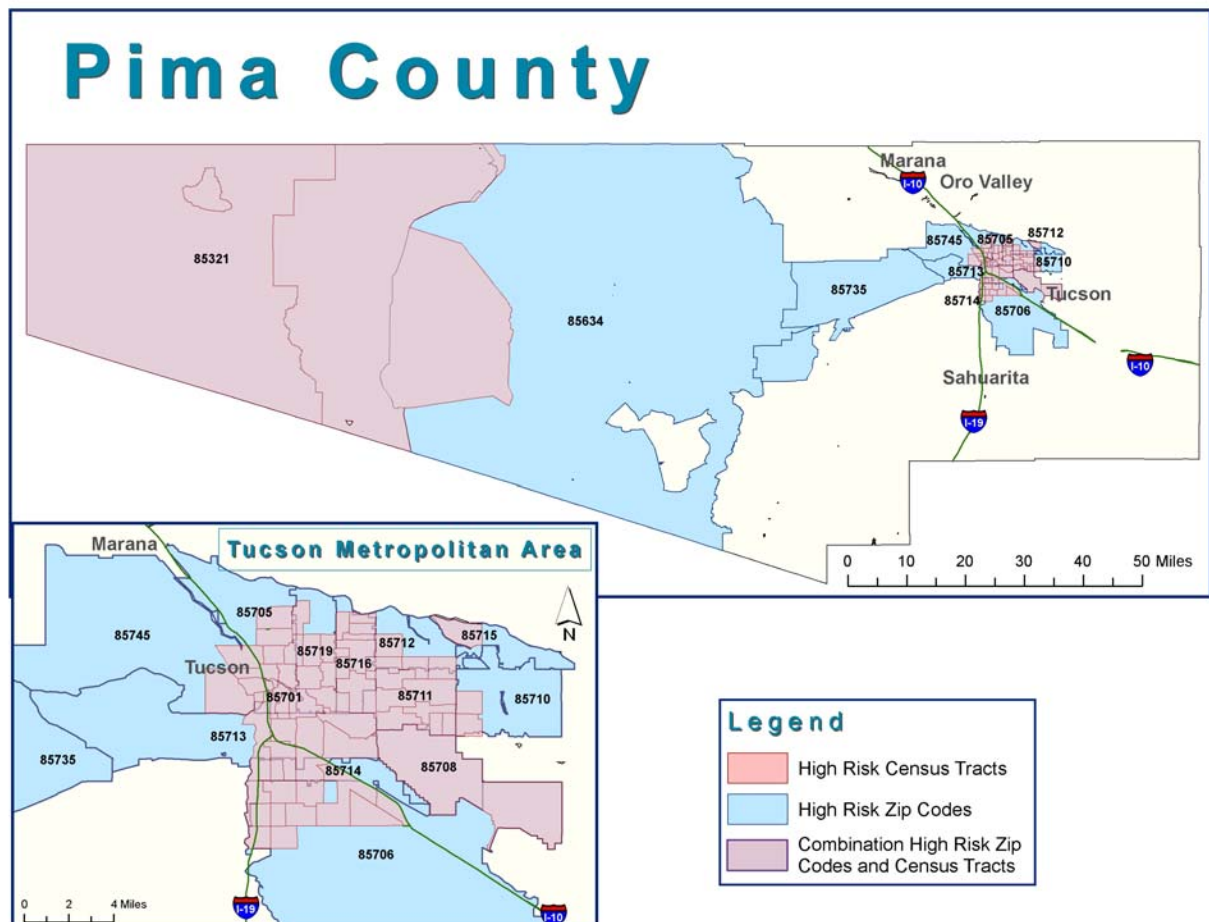
Maricopa CT 4214	0.543	Mesa	85201
Maricopa CT 4215.01	0.712	Mesa	85204
Maricopa CT 4215.02	0.835	Mesa	85201
Maricopa CT 4216.01	0.537	Mesa	85204
Maricopa CT 4216.02	0.603	Mesa	85204
Maricopa CT 4218.02	0.505	Mesa	85204
Maricopa CT 4219.02	0.578	Mesa	85204
Maricopa CT 4220.01	0.801	Mesa	85210
Maricopa CT 4220.02	0.435	Mesa	85210
Maricopa CT 5228	0.608	Mesa	85212
Maricopa CT 5229.02	0.536	Chandler	85225
Maricopa CT 5230.02	0.524	Chandler	85225
Maricopa CT 5231.02	0.392	Chandler	85225
Maricopa CT 5231.04	0.507	Chandler	85224
Maricopa CT 7233.02	0.397	SW County	85337, 85326



Pima

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Pima CT 1	0.436	Tucson	85701
Pima CT 2	0.579	Tucson	85745
Pima CT 3	0.738	Tucson	85705
Pima CT 4	0.963	Tucson	85719
Pima CT 5	0.620	Tucson	85719
Pima CT 6	0.801	Tucson	85716
Pima CT 7	0.802	Tucson	85713
Pima CT 8	0.854	Tucson	85713
Pima CT 9	1.049	Tucson	85701
Pima CT 10	0.891	Tucson	85745
Pima CT 11	0.946	Tucson	85705
Pima CT 12	0.539	Tucson	85705
Pima CT 13.01	0.596	Tucson	85705
Pima CT 13.02	0.515	Tucson	85705
Pima CT 14	0.622	Tucson	85719
Pima CT 15	0.721	Tucson	85719
Pima CT 16	0.735	Tucson	85719
Pima CT 17	0.627	Tucson	85716
Pima CT 18	0.709	Tucson	85716
Pima CT 19	0.656	Tucson	85716, 85711
Pima CT 20	0.790	Tucson	85713
Pima CT 21	0.945	Tucson	85713, 85708
Pima CT 22	0.534	Tucson	85714
Pima CT 23	0.896	Tucson	85713
Pima CT 24	0.949	Tucson	85735
Pima CT 25.01	0.845	Tucson	85714
Pima CT 26.01	0.516	Tucson	85705
Pima CT 26.02	0.447	Tucson	85719
Pima CT 28.01	0.401	Tucson	85716
Pima CT 28.02	0.551	Tucson	85716
Pima CT 28.03	0.632	Tucson	85716
Pima CT 29.01	0.691	Tucson	85712
Pima CT 30.02	0.469	Tucson	85712
Pima CT 31.01	0.564	Tucson	85716
Pima CT 31.02	0.592	Tucson	85712
Pima CT 32	0.800	Tucson	85716
Pima CT 33.01	0.366	Tucson	85711
Pima CT 33.02	0.723	Tucson	85711
Pima CT 34	0.989	Tucson	85711
Pima CT 35.01	0.663	Tucson	85713, 85711
Pima CT 35.02	0.652	Tucson	85711
Pima CT 35.03	0.690	Tucson	85711

Pima CT 35.04	0.712	Tucson	85711
Pima CT 36	0.525	Tucson	85706
Pima CT 37.01	0.488	Tucson	85706
Pima CT 37.02	0.621	Tucson	85706
Pima CT 37.04	0.495	Tucson	85706
Pima CT 37.05	0.430	Tucson	85706
Pima CT 38.01	1.036	Tucson	85714
Pima CT 38.02	0.717	Tucson	85706
Pima CT 39.01	0.516	Tucson	85706
Pima CT 39.02	0.773	Tucson	85714
Pima CT 39.03	0.610	Tucson	85706
Pima CT 40.08	0.719	Tucson	85710
Pima CT 40.30	0.613	Tucson	85715
Pima CT 41.04	0.454	Tucson	85714
Pima CT 41.11	0.514	Tucson	85706
Pima CT 41.12	0.379	Drexel-Alvernon	85706
Pima CT 44.15	0.471	Tucson	85745
Pima CT 49	0.475	SW County	85321
Pima CT 50	0.748	Ajo	85321
Pima CT 9407	0.373	Pisinemo	85634



La Paz

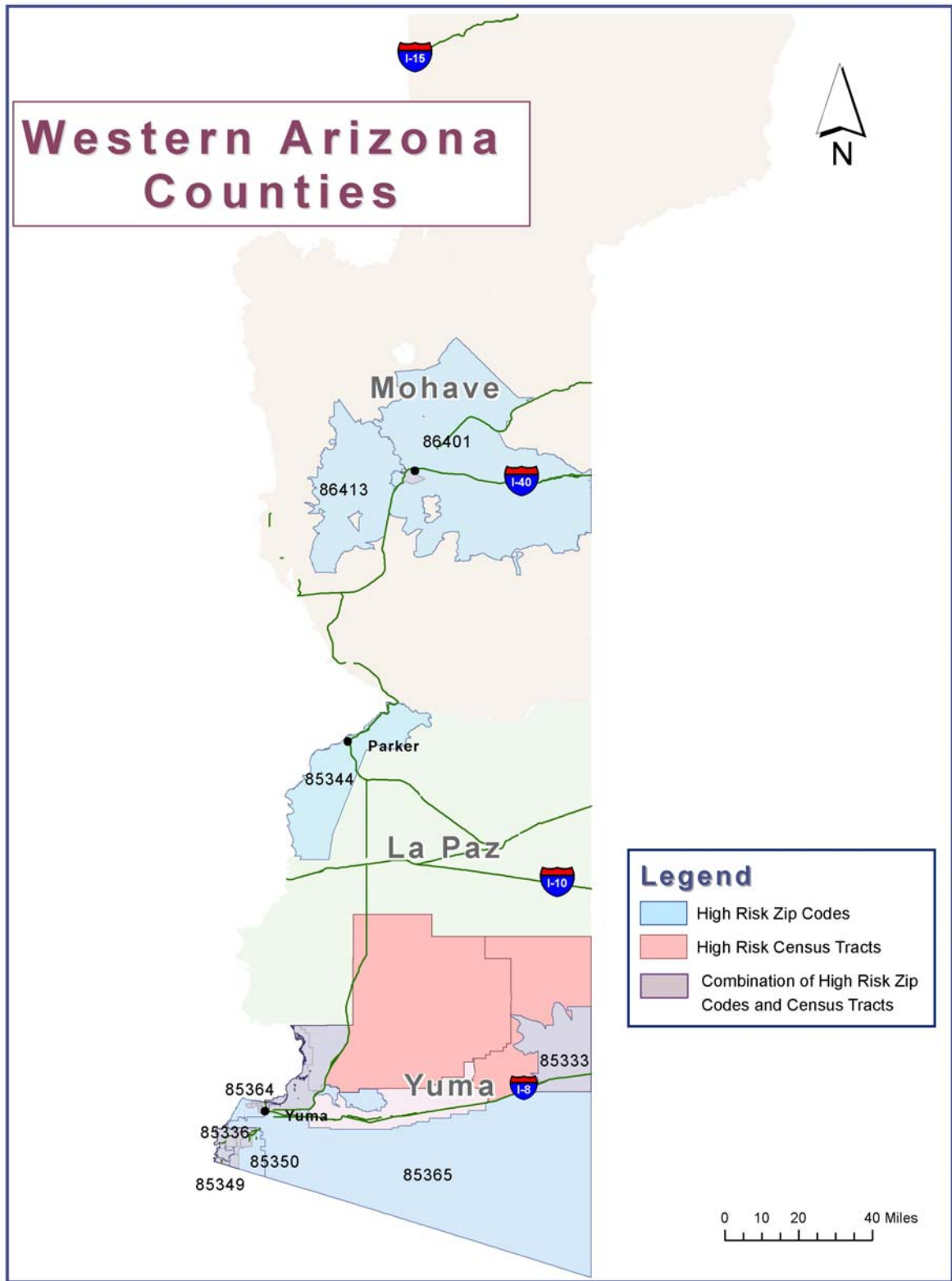
High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
La Paz CT 9402	0.364	Parker	85344

Mohave

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Mohave CT 9511	0.582	Kingman	86401, 86413

Yuma

High Risk Census Tracts	Lead Poisoning Risk Index	Geography	Zip Code
Yuma CT 1	1.044	Yuma	85364
Yuma CT 2	0.873	Yuma	85364
Yuma CT 3.01	0.595	Yuma	85364
Yuma CT 3.02	0.724	Yuma	85364
Yuma CT 4.01	0.485	Yuma	85364
Yuma CT 4.02	0.453	Yuma	85364
Yuma CT 6	0.510	Yuma	85364
Yuma CT 7	0.645	Yuma	85364
Yuma CT 8	0.517	Yuma	85364
Yuma CT 105	0.997	N County	85365
Yuma CT 106	0.579	NE County	85333
Yuma CT 109.01	0.371	NW County	85365
Yuma CT 114.01	0.715	San Luis	85349, 85350
Yuma CT 115.01	0.602	Gadsen	85336
Yuma CT 115.02	0.678	Somerton	85350
Yuma CT 116	0.802	San Luis	85349



### Exceptions to the LPRI Equation

There are 2 exceptions to the LPRI equation as the only means to identify high-risk census tracts. The first is by majority agreement of the Lead Poisoning Prevention Coalition, as is the case with Maricopa 303.78 in New River. The second exception involves situations in which a census tract has an index score lower than 0.359 but is home to at least 3 lead poisoned children over the time period 2001-2004. There are 5 cases total in Gila, Mohave, Pima, Pinal, and Yuma County respectively. The exceptions to the LPRI census tracts are:

Census Tract Voted on by the Coalition:

Census Tract	Geography	Index Score	# of EBL Children	Zip Code
Maricopa CT 303.78	New River	0.120	0	85087

The New River Tract was deemed high risk by the Coalition due to a problem with lead in drinking water that was identified by the ADHS Environmental Health Consultation Services Program<sup>10</sup>.

Census Tracts with Low Index Scores but Home to at least 3 EBL Children:

Census Tract	Geography	Index Score	# of EBL Children	Zip Code
Gila CT 9404	San Carlos	0.314	5	85550
Mohave CT 9516	Bullhead City	0.188	3	85550, 86442
Pima CT 45.05	Tucson	0.339	3	85705
Pinal CT 14.02	Case Grande	0.310	3	85222
Yuma CT 114.02	Yuma	0.294	4	85350

### Conclusion

The 2005 Targeted Screening Plan has determined that all 15 of Arizona's Counties contain census tracts in which a child is at risk of becoming lead poisoned. Be it by living in an old house with lead paint, socioeconomic conditions, or adherence to lead cultural habits. The defined variables used to determine the index score were developed from the observation of patterns and data from case files of lead poisoned children.

Lead Poisoning remains a common, yet preventable, environmental health threat in Arizona. The Centers for Disease Control and Prevention issued guidelines for state and local public health agencies that outline criteria for developing a targeted approach to blood lead screening.

The Arizona Department of Health Services and the Childhood Lead Poisoning Surveillance Subcommittee examined local data and determined that certain geographic areas present a higher risk for Arizona children becoming exposed to lead. This targeted screening plan was established to focus blood lead testing resources on the children in the

state who are at higher risk for lead poisoning. This updated plan also supports the Arizona Health Care Cost Containment System (AHCCCS) mandatory blood lead test screening policy.

Statewide support from local public health agencies, healthcare providers, managed-care organizations, Medicaid, private insurance organizations, and the community is essential for Arizona to meet the national goal of eliminating childhood lead poisoning by the year 2010.

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8. Centers for Disease Control and Prevention. Screening Young Children for Lead Poisoning. Guidance for State and Local Public Health Officials. Atlanta, GA: US Dept of Health and Human Services, Public Health Service; November 1997  
aCopies of this document can be obtained by request to Lead Poisoning Prevention Branch, Centers for Disease Control and Prevention, Mail Stop F 42, 4770 Buford Hwy, NE, Atlanta, GA 30341-3724, or by calling 770-488-7330. The document is also posted on the Internet at <http://www.cdc.gov/nceh/programs/lead/guide/1997/guide97.htm>
9. Centers for Disease Control and Prevention. Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta, GA: US Dept of Health and Human Services, Public Health Service; March 2002
10. [http://www.azdhs.gov/phs/oeh/pdf/new\\_river\\_consult\\_2004\\_final.pdf](http://www.azdhs.gov/phs/oeh/pdf/new_river_consult_2004_final.pdf) .

## **MEMBERS OF THE ARIZONA LEAD POSIONING PREVENTION COALITION**

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